What is claimed is:

CLAIMS

1. A multi-tap camera, comprising:

a multitap imager with a plurality of output taps;

a plurality of separate digitizing channels for each imager output tap;

an adjustment for channel gain and black level; and

a channel balancer for comparing adjacent pixels represented in each digitizing channel and for summing differences in levels over many frames, and where an accumulated difference is used as a feedback signal to drive such summing to a minimum.

2. The camera of Claim 1, wherein:

the adjustment is such that said black level is set by temporarily blacking out the imager, and said feedback is used to find a balance of black levels between the channels.

3. A multi-tap camera, comprising:

a multitap imager with a plurality of output taps;

a plurality of separate digitizing channels for each imager output tap; and

a pattern generator for use once during a calibration to generate a test pattern in the digitizing channels that demonstrates to a framegrabber how exactly to restitch the various lanes or zones of a whole image frame back together by pixel shifting columns.

4. A method for improving the operation of a multitap imager in a camera, the method comprising the steps of:

collecting pixel information from a plurality of taps in a multitap imager connected to respective channels that include samplers, amplifiers, and digitizers;

comparing the difference between pixel values in adjacent pixels from respective said taps; and

adjusting a channel associated with one of said taps to minimize a sum of any such differences between pixel values in adjacent pixels from respective said taps.

5. The method of claim 4, wherein:

the adjusting is such that the gain of one channel is changed relative to the gain of another channel.

6. The method of claim 4, wherein:

the adjusting is such that the DC-level of one channel is changed relative to the gain of another channel by optically forcing said imager to output its black levels.

7. A method for calibrating a multitap imager in a camera for use with a framegrabber, the method comprising the steps of:

generating a test pattern by injecting its constituent frame parts into a plurality of taps in a multitap imager connected to respective channels that include samplers, amplifiers, and digitizers; and

setting a restitching by a framegrabber of the test pattern to eliminate bit shifts in lines and rows.